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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/993,308	11/23/2001	Andreas Stiegler	6472	5355

7590 05/26/2006
Samuels, Gauthier & Stevens LLP
Suite 3300
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Boston, MA 02110

EXAMINER

JONES, PRENELL P

ART UNIT	PAPER NUMBER
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2616

DATE MAILED: 05/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/993,308	Applicant(s) STIEGLER ET AL.	
	Examiner Prenell P. Jones	Art Unit 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 10-16 is/are allowed.
- 6) ☐ Claim(s) 1-9 and 17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10/31/05-11/10/05</u> . | 6) <input type="checkbox"/> Other: _____ |

Double Patenting

1. Claim 9 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 8. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).
2. Applicant is advised that should claim 8 be found allowable, claim 9 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out

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the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-3, 5 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Siegmund (NON-PATENT Literature, "Network Engineering") in view of DeGrandpre et al (US Pat. 6,678,275).

Regarding claim 1, Siegmund discloses a network engineering architecture as associated in an ATM environment consist of multiple connections being set-up with respect to ISDN and B-ISDN, coupling of anisochronous data streams in association from LANs through isochronous transmission in association with ISDN or B-ISDN network (Fig. 8.77, 8.79 and 9.3, page 29), sources reserving resources (channels/bandwidth), wherein the reserved resources exceed bandwidth (page 40, line 24 thru page 41, line 3, 42, 43). Although, Siegmund indicates that there is no provision for partial utilization of 64-kbit channels in ISDN/LAN service, he does disclose the use of combining multiple 64-kbit channels (page 27). Therefore, the service of partitioning is indirectly implemented via the suggestion of combining data channels. However, Siegmund is silent on filler bit locations of the packets not required to transmit the anisochronic data with filler data. In a network engineering system where ATM is utilized, DeGrandpre discloses an ATM termination device wherein a plurality of channels for isochronous TDM transmission/ATM TDM of serial streams of cells, combination of multiple slower TDM channels (T1 and E1 channels) into a channel of higher bandwidth which is referred to as IMA (inverse multiplexing ATM), whereby if system lacks ATM layer cells to be sent in IMA frame then filler cells are transmitted to maintain continuous cells in physical layer (filling bit locations of packets

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not required to transmit anisochronic data with filler data (col. 1, line 63-67, col. 3, line 44-50.)

Therefore, it would be obvious to one of ordinary skill in the art at the time of the invention to be motivated to implement utilizing filler data when there is an absence of ATM cells as to provide a continuous cell stream as taught by DeGrandpre with the teachings of Siegmund for the purpose of minimizing delay as associated in an ATM environment.

Regarding claim 2, as indicated above, Siegmund discloses a network engineering architecture as associated in an ATM environment consist of multiple connections being set-up with respect to ISDN and B-ISDN, coupling of anisochronous data streams in association from LANs through isochronous transmission in association with ISDN or B-ISDN network (Fig. 8.77, 8.79 and 9.3, page 29), sources reserving resources (channels/bandwidth), wherein the reserved resources exceed (page 40, line 24 thru page 41, line 3, 42, 43). Siegmund further discloses synchronization processing and mechanism associated in an ATM environment with the packetizing of data (page 59 and page 60, subsection 9.2.2, lines 1-5, page 68).

Regarding claim 3, as indicated above, Siegmund discloses a network engineering architecture as associated in an ATM environment consist of multiple connections being set-up with respect to ISDN and B-ISDN, coupling of anisochronous data streams in association from LANs through isochronous transmission in association with ISDN or B-ISDN network (Fig. 8.77, 8.79 and 9.3, page 29), sources reserving resources (channels/bandwidth), wherein the reserved resources exceed (page 40, line 24 thru page 41, line 3, 42, 43). Siegmund further discloses STM-1 frames in B-ISDN contain exactly equal data quantity (Fig. 9.71, page 69).

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Regarding claim 5, as indicated above, Siegmund discloses a network engineering architecture as associated in an ATM environment consist of multiple connections being set-up with respect to ISDN and B-ISDN, coupling of anisochronous data streams in association from LANs through isochronous transmission in association with ISDN or B-ISDN network (Fig. 8.77, 8.79 and 9.3, page 29), sources reserving resources (channels/bandwidth), wherein the reserved resources exceed (page 40, line 24 thru page 41, line 3, 42, 43). Siegmund further discloses voice transmission, videoconference and multimedia implementation (Table 9.1, page 31).

Regarding claim 4, as indicated above, the combined teachings of Siegmund and DeGrandpre discloses a network engineering architecture as associated in an ATM environment consist of multiple connections being set-up with respect to ISDN and B-ISDN, coupling of anisochronous data streams in association from LANs through isochronous transmission in association with ISDN or B-ISDN network sources reserving resources wherein the reserved resources exceed bandwidth of data stream, and, an ATM termination device wherein a plurality of channels for isochronous TDM transmission/ATM TDM of serial streams of cells, combination of multiple slower TDM channels into a channel of higher bandwidth which is referred to as IMA, whereby if system lacks ATM layer cells to be sent in IMA frame then filler cells are transmitted to maintain continuous cells in physical layer. Although, Siegmund is silent on reserve channels being time multiplexed channels and transmission includes TDM bus, DeGrandpre discloses utilizing TDM channels/links and TDM trunks/bus for sending cells over channels/links, and scheduling (reserve) resources as well as data (Abstract, Fig. 1, col. 1, line 10-26, col. 2, line 11-36, it is well known in ATM environment to utilize TDM links, such as T1 and/or E1 for receiving cells) as it is associated in an ATM environment. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to be motivated to implement utilizing TDM as

reserve channels as taught by DeGrandpre with the teachings of Siegmund for the purpose of further accommodating communication in an ATM environment with minimal delay.

4. Claims 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Siegmund (NON-PATENT Literature, "Network Engineering") in view of DeGrandpre et al (US Pat. 6,678,275) as applied to claims 1-5 above, and further in view of Teichner (NON-PATENT Literature).

Regarding claims 6-9, Siegmund discloses a network engineering architecture as associated in an ATM environment consist of multiple connections being set-up with respect to ISDN and B-ISDN, coupling of anisochronous data streams in association from LANs through isochronous transmission in association with ISDN or B-ISDN network (Fig. 8.77, 8.79 and 9.3, page 29), sources reserving resources (channels/bandwidth), wherein the reserved resources exceed (page 40, line 24 thru page 41, line 3, 42, 43), the use of combining multiple 64-kbit channels (page 27), the service of partitioning is indirectly implemented via the suggestion of combining data channels, and DeGrandpre discloses an ATM termination device wherein a plurality of channels for isochronous TDM transmission/ATM TDM of serial streams of cells, combination of multiple slower TDM channels (T1 and E1 channels) into a channel of higher bandwidth which is referred to as IMA (inverse multiplexing ATM), whereby if system lacks ATM layer cells to be sent in IMA frame then filler cells are transmitted to maintain continuous cells in physical layer (filling bit locations of packets not required to transmit anisochronous data with filler data (col. 1, line 63-67, col. 3, line 44-50), and reserved channels are used automatically. However, Siegmund and DeGrandpre are silent on MOST transmission network. In a network multimedia transmission communication system associated in an automobile environment, Teichner

discloses utilizing MOST, which supports multimedia functionality on the basis of 44.1kHz, as it is associated in an optical bus ring (page 122, Fig. Bld 4, left column, paragraph 4). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to be motivated to implement utilizing MOST network as it supports various communication such as DVD, CD, radio and video as taught by Teichner with the combined teachings of Siegmund and DeGrandpre network engineering environments for the purpose of further providing and satisfying high requirements as associated with multimedia systems at a reasonable cost.

Allowable Subject Matter

5. Claims 10-16 are allowed over prior art.

6. The following is a statement of reasons for the indication of allowable subject matter:

Although the combined prior art of Siegmund (NON-PATENT Literature, "Network Engineering"), DeGrandpre et al (US Pat. 6,678,275) and Teichner (NON-PATENT Literature) teaches a network engineering architecture as associated in an ATM environment consist of multiple connections being set-up with respect to ISDN and B-ISDN, coupling of anisochronous data streams in association from LANs through isochronous transmission in association with ISDN or B-ISDN network sources, reserving resources, wherein the reserved resources exceed bandwidth, the service of partitioning is indirectly implemented via the suggestion of combining data channels, and an ATM termination device wherein a plurality of channels for isochronous TDM transmission/ATM TDM of serial streams of cells, filler cells are transmitted to maintain continuous cells in physical layer, utilizing MOST, which supports multimedia functionality on the basis of 44.1kHz, they fail to teach or suggest with respect to claim 10, fill unused bit locations of each packet with filler data and provide output packets indicative a first bus interface that receives output packets, a second bus interface that receives output packets, receiver that

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processes input packets to recover anisochronous data stream, and provides a recovered anisochronous data stream.

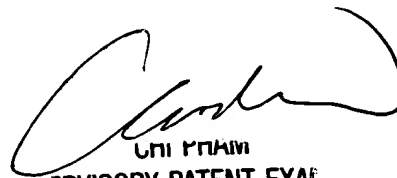
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prenell P. Jones whose telephone number is 571-272-3180. The examiner can normally be reached on 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Prenell P. Jones

May 23, 2006


CHI PHAM
SUPERVISORY PATENT EXAMINER